



DEPARTMENT OF COMMUNITY DEVELOPMENT SERVICES

Planning Division

m e m o r a n d u m

TO: The Urbana Plan Commission

FROM: William R. Gray, Public Works Director
Elizabeth H. Tyler, AICP, Community Development Director

DATE: November 3, 2006

SUBJECT: East Urbana Interceptor Study Update and Design Request

Introduction

Action Requested

The Mayor of Urbana has requested Urbana Plan Commission review and consideration of the East Urbana Interceptor Study Update and Design Report with respect to planning implications. This review will be considered as a part of a request to City Council to accept the preliminary engineering report results for the East Urbana Interceptor Study and to proceed with an intergovernmental agreement for the engineering design for the East Urbana Interceptor.

Background

In February 2001, the Urbana & Champaign Sanitary District (UCSD) issued a multi-volume *Long Range Facility Plan* based upon work completed by Consoer Townsend Envirodyne Engineers, Inc. This planning effort is the first completed by the District in over 25 years and addresses the District's facilities planning area, interceptor sewer service area plan, treatment facilities long range plan, and a financial plan. An executive summary of this Plan is attached for reference. As part of the *UCSD Long Range Facility Plan*, Sodemann & Associates prepared the *Interceptor Sewer Service Area Plan Technical Memorandum 11* (TM-11) and associated map indicating potential sanitary sewer routing in East Urbana.

The Urbana Comprehensive Plan Steering Committee, Urbana Plan Commission, and City Council conducted an extensive review of the *Long Range Facility Plan* in terms of its technical, land use planning, and financial implications. The Long Range Facility Plan was referenced in developing the *2005 Comprehensive Plan*. While there were concerns on the part of the City about the financial planning and equity of the fee recovery systems for the *Long Range Facility Plan*, the technical and land use planning aspects of the Plan were determined to be in the best interests of the City. A Resolution Regarding the Urbana and Champaign Sanitary District Long

Range Plan endorsing the facilities planning area, interceptor sewer service area plan, and treatment facilities long-range components was passed by the City Council on September 4, 2001 (Res. No. 2001-09-026R, copy attached).

The East Urbana Interceptor report now under consideration is an outgrowth of Sodemann's 2000 report. The current report is intended to form the basis for designing a relocated Myra Pump Station and future sewer interceptor routes as anticipated in the Long Range Facility Plan.

In 2005, the Engineering Division of the City of Urbana was tasked with developing a proposed plan and cost estimate for providing sanitary sewer service for the developing area on the south and east side of Urbana. A preliminary plan for providing sanitary sewers for east Urbana was included in the *Interceptor Sewer Service Area Plan Technical Memorandum 11* (TM-11) prepared by Sodemann & Associates for the Urbana Champaign Sanitary District (UCSD) in December 2000. A more detailed analysis of the infrastructure required for sanitary sewers in south and east Urbana was completed in a preliminary engineering report prepared by Sodemann & Associates for the UCSD and City in August 2006 (copies enclosed). The sewer infrastructure proposed is described below and shown on the attached Figure #1.

The East Side Interceptor Project will consist of:

- A new regional pump station.
- A new 36-inch diameter interceptor sewer between the existing Myra Pump Station and New Regional Pump Station.
- New 30-inch diameter force main to the Northeast Wastewater Treatment Plant.
- Abandoning the existing Myra Pump Station.
- Construct 24-inch and 18-inch diameter sanitary sewer interceptors 400-feet north, south, and east of the new Regional Pump Station.

The new interceptors and pump station would provide sanitary sewer service for an area east of Route 130, south of I-74 and north of Curtis Road.

Financial Impact

The preliminary engineering report estimates the project cost at \$7.9 million dollars. The preliminary engineering report estimated that UCSD's share would be \$3.9 million dollars (49%) which included the 36-inch interceptor, a portion of the pump station, and a portion of the force main. The City's share would be \$4.0 million dollars (51%) and includes the 24 and 18-inch interceptors, a portion of the lift station, and a portion of the force main. The cost shares are determined by all existing facilities and waste to be incorporated into the proposed work is at UCSD expense (49%) and all new development and corresponding waste will be at City (to be recovered via developers) expense (51%).

UCSD's desire is to finance the project through a State Revolving Fund (SRF) loan from the Illinois Environmental Protection Agency. The SRF loan would be a twenty-year term at a below

market interest rate currently at 2.5%. The City's debt service on the \$4.0 million dollar share of the project cost would be \$254,700.

The City would recover its share of the project costs through an interceptor cost recovery fee for the area to be served. The City of Champaign, Village of Savoy, and UCSD all charge an interceptor cost recovery fee for new development. A summary of area cost recovery fees is presented below:

DESCRIPTION	FIGURE	SOURCE
CHAMPAIGN RECOVERY FEE	\$190/P.E.*	CHAMPAIGN
SAVOY RECOVERY FEE	\$160/P.E.	SAVOY
UCSD RECOVERY FEE	\$180/P.E.	UCSD

* P.E. stands for population equivalent which is a term used to evaluate the impact of industrial or other waste on a treatment works or stream. One population equivalent is 100 gallons of sewage per day.

The interceptor cost recovery fee for the East Urbana Interceptor will be determined at a later date and adopted by ordinance. The City will have to provide the initial funds to finance the project until sufficient development occurs to cover the projects costs through the interceptor cost recovery fee.

Planning Implications

The Urbana and Champaign Sanitary District's performance standard is to serve all developed areas in the urbanized area, as reflected by a Facilities Planning Area (FPA). As changes in the patterns and character of development are anticipated, UCSD's infrastructure plans must respond to these changes. Land use changes are shaped by adopted land use policies for future growth and development with the City's comprehensive plan playing a central role. Ideally, sewage facility plans complement and are interrelated with comprehensive land use plans. This has certainly been the case for Urbana, as the City was able to play an active role in reviewing and informing the *UCSD Long Range Facility Plan* as a part of the City's Comprehensive Plan effort.

Presently, East Urbana drainage basins served by the existing sewer system are largely developed, meaning that any substantial future development in south or east Urbana would have occur in one or more new drainage basin(s). Installation of pump stations and interceptor sewage lines to serve new drainage basins is not a new practice. The last interceptor line in Urbana was installed approximately 30 years ago and has fulfilled its need to serve development for those decades. Looking regionally, pump stations are also being installed in Champaign/Savoy and for part of the University of Illinois' larger campus to accommodate new growth. Failure to invest in new sewage infrastructure in Urbana would result in the inability to grow to east and south as shown in the future land use maps in the *2005 Comprehensive Plan*. Additional sewer capacity remains in North Urbana, but environmental, land use, and ownership restrictions have tended to constrain growth in this direction.

City staff reviewed the East Urbana Interceptor preliminary report in terms of the City's current land use policies. The *Comprehensive Plan* is the City's adopted policy guide for future growth and development. The Plan was used as the basis for determining future development in preparing the Preliminary Engineering Report now under consideration. Specifically, the Plan provided the basis for the locations, types, and intensities of land uses used to calculate the anticipated future sewer demand on a per acre basis. City staff provided UCSD and Sodemann data for their use.

The most pertinent information used for anticipating future development came from Future Land Use Maps 7 & 14 of the Urbana *Comprehensive Plan* (copies attached). Map 7 shows future land uses in the Route 130 corridor within the planning time horizon. Current and anticipated sewer service areas are depicted on Map 7 with a red dashed line depicting the approximate boundary of what can be served by the existing sewer system, and a blue dashed line depicting the additional area anticipated to be served by the East Side sewer interceptor. Map 14 shows both the existing and anticipated sewer service areas. The area on Map 14 to be served by the East Side sewer interceptor is annotated with, "Area outside UCSD service area; can be served by gravity with new interceptors."

It should be noted that the location of the existing and anticipated sewer areas were based on the best available data at the time of the 2005 *Comprehensive Plan* but that the East Urbana Interceptor report currently under consideration provides a more accurate depiction of areas which could eventually be served by gravity sewers.

In terms of the Comprehensive Plan's Goals and Objectives, the following are pertinent:

Goal 15.0 Encourage compact, contiguous and sustainable growth patterns.

Objective

- 15.2 Extend utilities and services in an orderly fashion to encourage compact, contiguous growth.
- 15.5 Promote intergovernmental cooperation on development and growth issues.

Goal 35.0 Expand utility infrastructure in areas considered most suitable for growth.

Objective

- 35.1 Locate new development in areas with ready access to urban services including sewer, utilities, transit and municipal services.
- 35.3 Work with the Urbana-Champaign Sanitary District to implement necessary interceptor and treatment facility improvements to serve the City's planning area.
- 35.4 Encourage coordinated area development efforts that allow several landowners and developers to share the expense of utility extension.

The proposed East Urbana interceptor conforms to Goal 15 to have contiguous growth patterns. This is because the proposed new sewer service area is not only contiguous with and an outgrowth of existing development, but the City's intergovernmental agreement with UCSD requires property to be annexed as a requirement for sewer service. Second, providing sanitary

sewer service allows for compact and sustainable growth patterns because it allows for development densities not possible using septic systems. Development using septic systems is characteristically very low density. Providing sewer service is a prerequisite for development of urban densities.

The proposed East Urbana interceptor similarly conforms to Goal 35 in that the development to be served is anticipated by the 2005 Comprehensive Plan, specifically Maps 7 & 14. The interceptor will provide ready access to a critical urban service and will directly implement Objective 35.3 – “Work with the Urbana-Champaign Sanitary District to implement necessary interceptor and treatment facility improvements to serve the City’s planning area.” In terms of sharing expenses for utility extension, even with construction of an interceptor, developers will still need to construct sewer lines as traditionally required which tie into the overall sewage collection system. Developers will also be responsible for the funding of the improvements through the use of the interceptor cost recovery fee described above.

In terms of the Comprehensive Plan’s Implementation Program, the East Side Interceptor report is anticipated in the following Implementation Strategies:

“Coordinate with the Urbana-Champaign Sanitary District (UCSD) to implement the North Urbana and East Urbana Interceptor projects identified in the UCSD Long Range Facilities Plan. (page 94)

“Study appropriate assessments and infrastructure recapture agreements to provide necessary funding for planned capital improvements such as roadway and sewer extensions.” (page 87)

In conclusion, the proposed East Urbana Interceptor will be necessary to serve new development anticipated for the next few decades by the *2005 Urbana Comprehensive Plan*. Acceptance of the East Side Interceptor preliminary engineering report is in accordance with City development policies adopted as part of the *2005 Comprehensive Plan* and would serve development in areas anticipated by that plan. Furthermore, design plans for the East Side Interceptor correspond with the 2000 *UCSD Long Range Facility Plan* which has previously endorsed by the City Council.

Recommendations

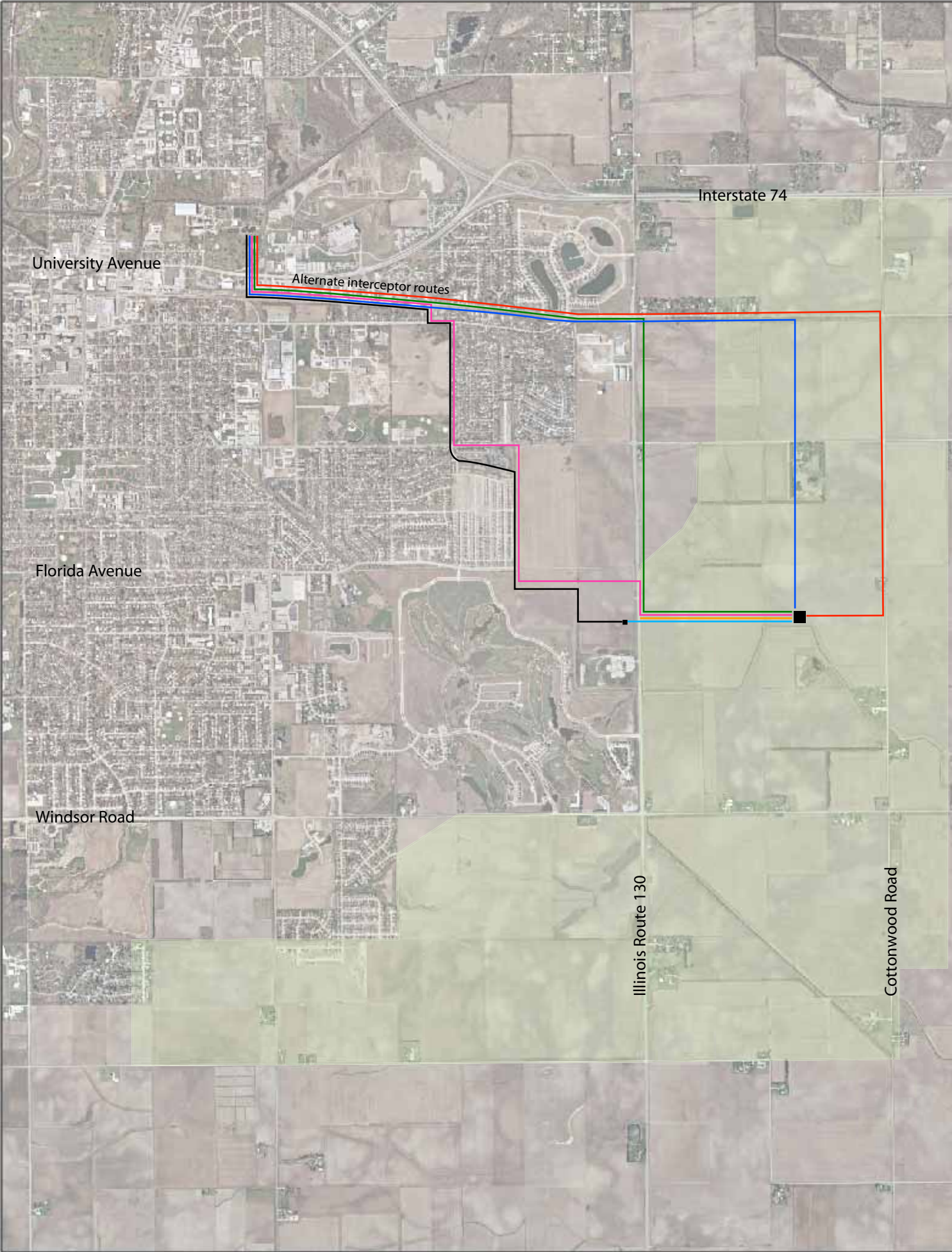
The Mayor and Council have requested Plan Commission input to assist in their review of the preliminary engineering report results for the East Urbana Interceptor Study and decision as to whether to enter into an intergovernmental agreement for completion of the UCSD led engineering design phase of the project.

Attachments:

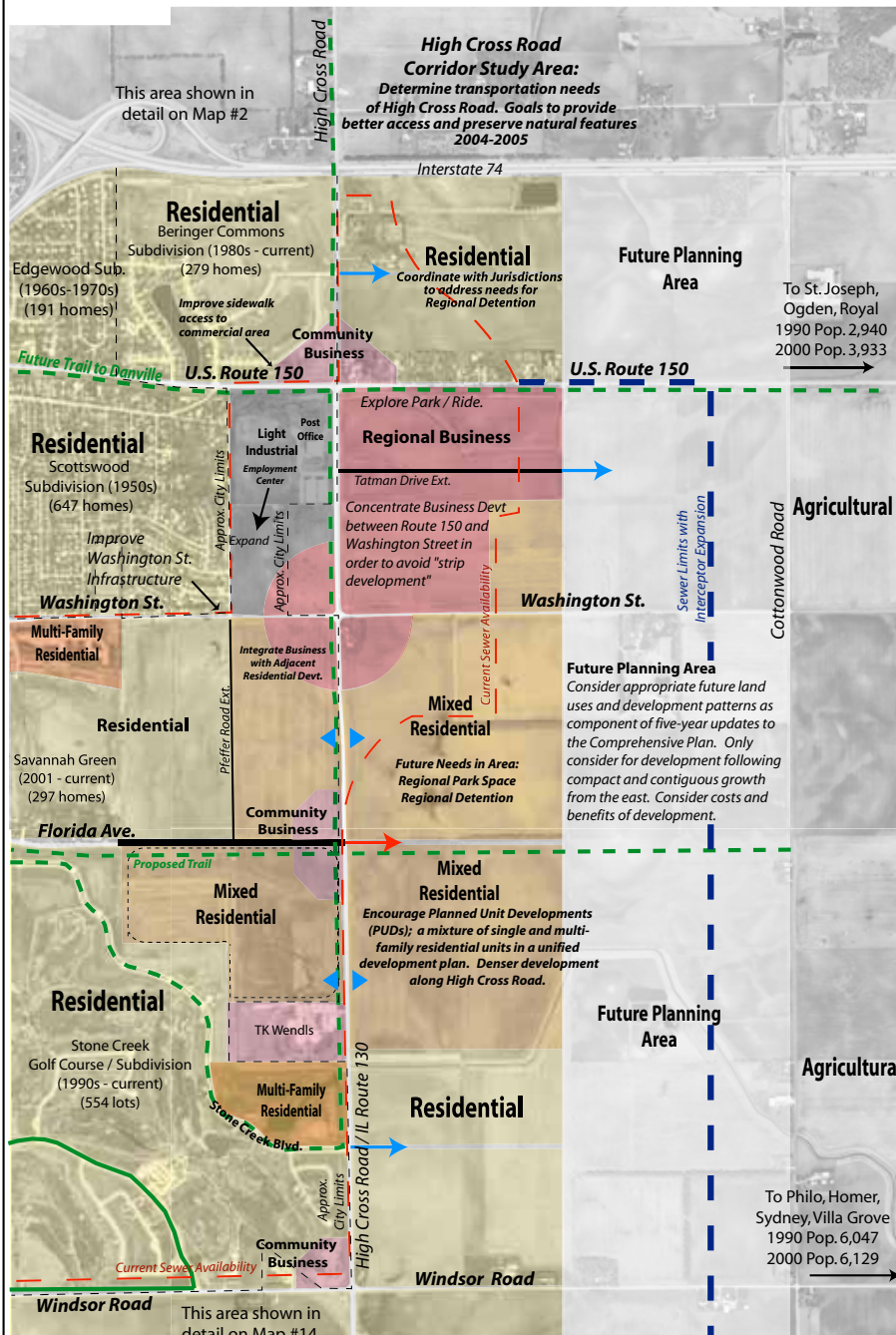
Executive Summary of UCSD Draft Long Range Plan
Resolution 2001-09-026R
Figure 1, East Urbana Interceptor Service Area
Future Land Use Maps 7 and 14

Separate:
Sodemann and Associates, Inc., Preliminary Engineering Report for the East Side Interceptor,
August 22, 2006

Figure 1: East Urbana Interceptor Service Area*



* Service area shown in green. Boundaries and routing are approximate until final system design completed



ADOPTED

April 11, 2005

Map Created by City of Urbana
Community Development Services Dept.

Access Management on High Cross Road

Direction and approximate location.
The exact location of roadways and/or right-of-way dedication depends on a variety of factors.

Pre-determined location for extension
The desired location of roadways and/or right-of-way dedication is known though further study is required to determine the final design.

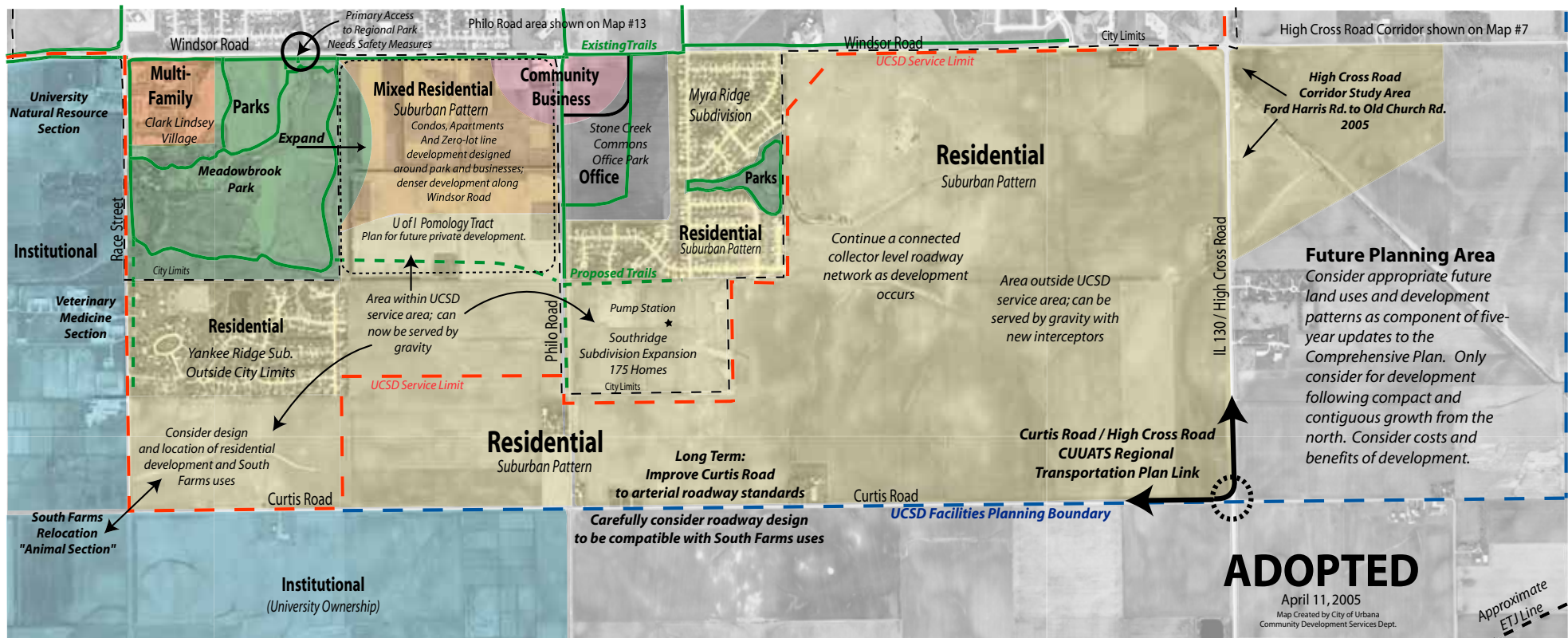
Note: See Appendix "D"; Mobility Map

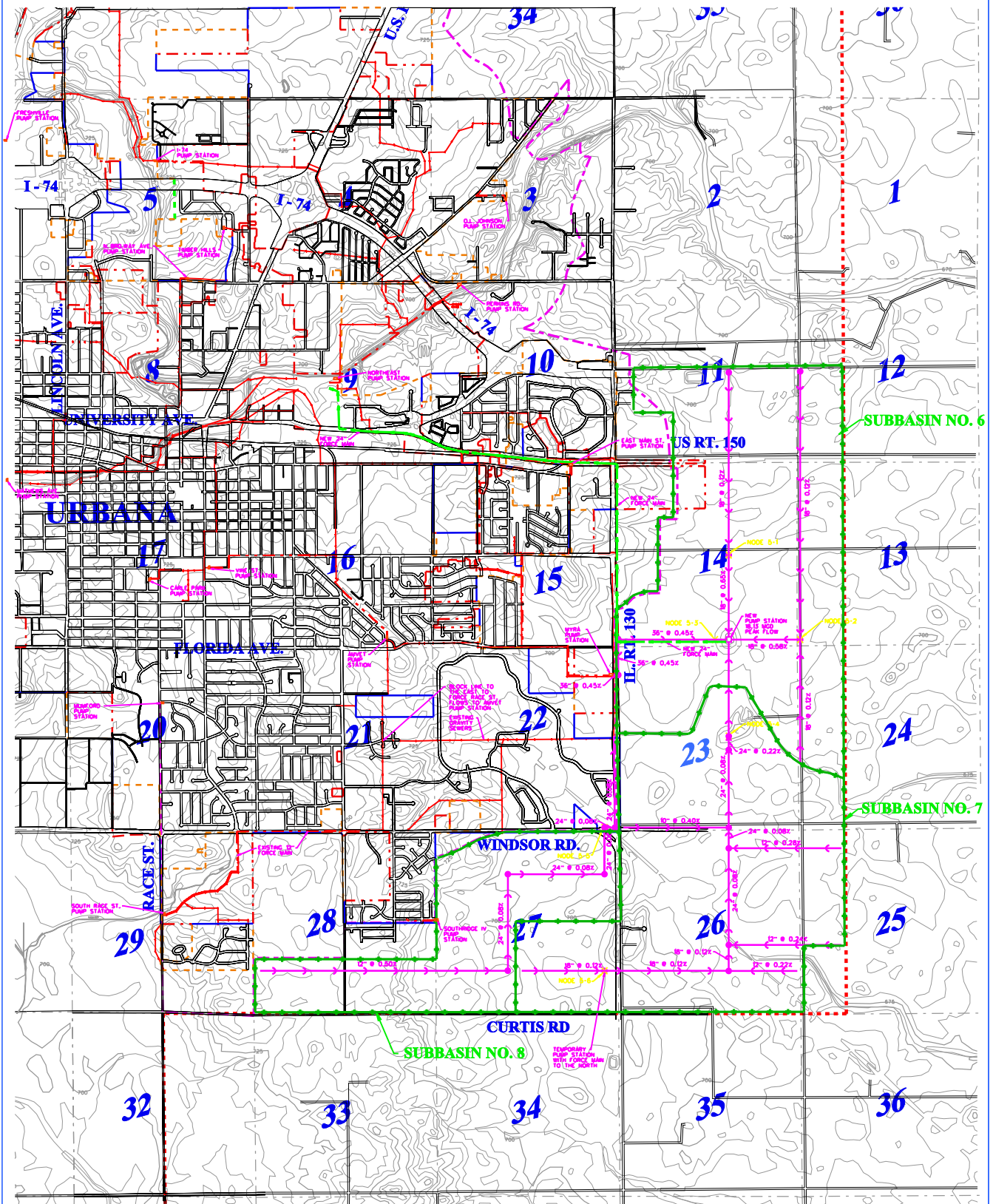


**2005
Comprehensive
Plan**

Future Land Use Maps Map #14

South Urbana





- LEGEND**
- DIST. COULDS PLANNING AREA
 - DISTRICT BOUNDARY LINE
 - PROPOSED SERVICE AREA
 - SERVICE INTERCEPTOR
 - SECTION LINE
 - STREET R/W
 - INTERCEPTOR & FORCE MAINS
 - 24" & 36" COULDS
 - PUMP STATION
 - NEW PUMP STATION
 - NEW INTERCEPTOR

**URBANA & CHAMPAIGN
SANITARY DISTRICT**
DISTRICT BOUNDARIES
AND SERVICE AREA MAP

**LONG RANGE FACILITY PLAN
URBANA & CHAMPAIGN SANITARY DISTRICT**

**MAP 5:
EAST URBANA INTERCEPTOR**



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